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## SYSTEM AND METHOD FOR PROVIDING INTERACTIVE AUDIO IN A MULTI-CHANNEL AUDIO ENVIRONMENT

### ABSTRACT OF THE DISCLOSURE

DTS Interactive provides low cost fully interactive immersive digital surround sound environment suitable for 3D gaming and other high fidelity audio applications, which can be configured to maintain compatibility with the existing infrastructure of 5 Digital Surround Sound decoders. The component audio is stored and mixed in a compressed and simplified format that reduces memory requirements and processor utilization and increases the number of components that can be mixed without degrading audio quality. Techniques are also provided for “looping” compressed audio, which is an important and standard feature in gaming applications that manipulate PCM audio. In 10 addition, decoder sync is ensured by transmitting frames of “silence” whenever mixed audio is not present either due to processing latency or the gaming application.